



SUB-COMMITTEE ON STANDARDS OF  
TRAINING AND WATCHKEEPING

29th session  
Agenda item 9

COMPREHENSIVE REVIEW OF RESOLUTION A.481(XII) -  
PRINCIPLES OF SAFE MANNING

Note by the ICFTU

SUMMARY

- Executive summary:** This submission provides a draft text for the revision of IMO Assembly resolution A.481 in the form of a Code. The draft seeks to reflect the changes in the organisation of work on board ships and the revision of the STCW Convention, especially the adoption of Chapter VII (Alternative Certification), while at the same time retaining the key human element aspects of the original resolution.
- Action to be taken:** Paragraph 6.
- Related documents:** STW 28/20 (paragraph 12) and MSC 69/13 (paragraph 28).

1 Since the adoption of IMO Assembly resolution A.481 there have been a considerable number of changes to both the regulatory regime and to industry practice on board ships, while at the same time the average age of the world fleet has continued to grow. There has been a considerable reduction in ship board manning which has been driven by economic considerations rather than safety related ones. The ICFTU is of the view that in some instances the accepted manning scales are below those which would be necessary for the safe operation of the ship in all eventualities and to ensuring that essential routine maintenance is undertaken. This has resulted in many ships operating with manning scales below those which they were originally designed for. The ICFTU's concern about the problems on bulk carriers is generally known.

2 The adoption of Chapter VII in the revised STCW Convention has in our opinion necessitated a fundamental review of the principles of safe manning so that there are adequate personnel on board the ship whatever the method of ship board organisation.

3 The ICFTU is also of the view that the fundamental revision of this Assembly resolution provides the opportunity to provide comprehensive guidelines which will mitigate the considerable economic pressures to reduce manning and to provide guidance which will assist in the implementation of the ISM Code.

4 Since the original principles of safe manning the Organization has rightly increased its work on the human element and has in the process noted the complexity and interrelation of the critical components. It has also adopted the principle that a failure of a single system should not result in failure of the whole system.

1\STW\29\9-1

For reasons of economy, this document is printed in a limited number. Delegates are kindly asked to bring their copies to meetings and not to request additional copies.

5 The ICFTU considers that the revision of the principles of safe manning is one of the most important human element related aspects on the current work programme of the Organization and provides an opportunity to put into practice some of the human element principles which have been developed.

**Action requested of the Sub-Committee**

6 The Sub-Committee is invited to note the suggestions contained in the annex during its deliberations.

\*\*\*

## ANNEX

### Resolution A.

#### International Minimum Safe Manning Code

#### THE ASSEMBLY,

RECALLING Article 15(j) of the Convention of the International Maritime Organization,

RECALLING FURTHER Article 28 (a) of that Convention which requires the Maritime Safety Committee to consider, *inter alia*, the manning of seagoing ships from a safety standpoint,

NOTING that safe manning is a function of the number of qualified and experienced seafarers necessary for the safety of the ship, crew, passengers, cargo and property and the protection of the marine environment,

RECOGNIZING the importance of the relevance of the requirements of the pertinent instruments adopted by IMO, ILO, ITU and WHO for maritime safety and protection of the marine environment and, in particular:

1. the ILO Merchant Shipping (Minimum Standards) Convention, 1976 (No. 147), as amended,
2. the International Convention on Standards of Training, Certification and Watchkeeping for Seafarers, 1978 (STCW), as amended,
3. the International Safety Management Code (ISM) - IMO Assembly resolution A.741(18); and
4. IMO Assembly resolution A.772(18) Fatigue Factors in Manning and Safety.

BEING AWARE that the ability of seafarers to maintain observance of these requirements is dependant upon their continued efficiency through conditions relating to training, hours of work and rest, occupational safety, health and hygiene, the proper provision of food and the provision of adequate resources,

BELIEVING that international acceptance of broad principles as a framework for administrations to determine safe manning of ships would materially enhance maritime safety and the protection of the marine environment and mitigate unfair competition,

URGES Member Governments, when exercising port state control functions under international conventions in force with respect to foreign registered ships visiting their ports, to ensure that every seagoing ship carries on board at all times a document issued by the Administration specifying the safe manning required for such a ship and containing the information set out in the Annex,

URGES FURTHER that Member Governments, when exercising port State control functions under international conventions in force with respect to foreign ships visiting their ports, should regard compliance with such a document as evidence that the ship is safely manned,

**ADOPTS** the International Minimum Safe Manning Code,

**URGES** Member Governments to take all necessary measures to give effect to the International Minimum Safe Manning Code,

**REVOKES** Assembly resolution A.481(XII).

## ANNEX 1

**Draft International Minimum Safe Manning Code****Introduction**

This Code should be applied to all seagoing ships for which the Administration has provided a safe manning document in accordance with regulation 13 of Chapter V of the Safety of Life at Sea Convention (SOLAS Convention), 1974, as amended.

**1. Application**

1.1 This Code applies to all seagoing ships to which Chapter 1 of SOLAS applies.

**2. Definitions and clarifications**

2.1 For the purpose of this Code, unless expressly provided otherwise:

- .1 Minimum Safe Manning Document means a document issued by the Flag State Administration as evidence of minimum safe manning in accordance with the provisions of regulation 13 of Chapter V of SOLAS and this Code;
- .2 Ro-ro passenger ship means a passenger ship with ro-ro cargo spaces or special category spaces as defined in the International Convention for the Safety of Life at Sea, 1974, as amended;
- .3 Master means the person having command of a ship;
- .4 Chief engineer officer means the senior engineer officer responsible for the mechanical propulsion and the operation and maintenance of the mechanical and electrical installations of the ship;
- .5 Chief mate and second engineer officer means the persons next in rank to the master and the chief engineer officer respectively and upon whom the responsibilities of the master and chief engineer officer will fall in the event of the incapacity of the master or chief engineer officer;
- .6 Watchkeeping personnel means personnel who have watchkeeping duties and/or responsibilities either in the deck, engine or radio department or other operational duties;
- .7 Ships of limited size means ships below 3,000 GT and/or with a propulsion power of less than 3,000 kW; and
- .8 Engineering watch means the person or group of persons undertaking the engineering watch or a period of responsibility for an officer during the period of time when the physical presence of the engineering officer in the machinery spaces may or may not be required.

**3. General requirements**

**3.1 The application of the provisions of this Code are subject to the following general requirements that:**

- .1 the Code should be applied in its entirety to ensure the safe operation of ships covered by Article III of the 1978 STCW Convention.**
- .2 The following factors should be taken into account:**
  - (a) voyage description including trade or trades in which the ship is involved, length and nature of voyage, frequency and duration of manoeuvring periods and waters;**
  - (b) number, size (kW) and type of main propulsion units and auxiliaries;**
  - (c) size of ship;**
  - (d) construction and technical equipment of ship;**
  - (e) kind of operations the ship is involved in;**
  - (f) kind of continuous maintenance and repair works needed on board;**
  - (g) differences in cargo handling, including cargo care and the maintenance of cargo containment equipment spaces during the voyage and involvement by the crew in cargo operations.**

**3.2 When assessing the safe manning of a vessel the Administration should take into account that there should be a sufficient number of qualified personnel to meet peak workload situations and conditions with due regard to the number of hours of shipboard duties or periods of responsibilities and rest periods that may be assigned to a seafarer. The Administration should also bear in mind that the following functions are integral to the safety of the vessel:**

- .1 navigation;**
- .2 watchkeeping;**
- .3 cargo handling, stowage and maintenance of cargo containment equipment spaces;**
- .4 controlling the operation of the ship and care for persons on board;**
- .5 marine engineering;**
- .6 electrical, electronic and control engineering;**
- .7 maintenance and repair, including fire-fighting equipment and life-saving appliances;**
- .8 radiocommunications;**
- .9 search and rescue and assisting other vessels in distress;**

\* ADD - NAVIGATION OF VESSEL IN RESTRICTED WATERS

- .10 the frailty of persons and the need to ensure that there is back up in the event of incapacity;
  - .11 the operation of all on-board fire-fighting and life-saving appliances;
  - .12 the muster and disembarking of passengers, non-essential personnel and other crew members;
  - .13 operation of all watertight closing arrangements and the deployment of a competent damage control party;
  - .14 mooring and unmooring the ship in an effective and safe manner;
  - .15 the provisions of ongoing training; and
  - .16 accident prevention, occupational safety and health, environmental protection and the establishment of an on board safety culture.
- 3.3 The Administration should also take into account the length of periods of continuous service on board and whether a regular relief system is provided.
- 3.4 If an Administration retains or adopts arrangements which differ from these provisions it should ensure that the detailed manning arrangements provide a degree of safety at least equivalent to those contained in this Code and should notify the Secretary-General of the Organization accordingly.
- 3.5 The Administration should ensure that the management of the company operating the ship exercises strict control over its operation and maintenance by a quality management system in accordance with the International Safety Management (ISM) Code accepted by the Organization by resolution A.741(18).
- 3.6 The Administration should satisfy itself that the management and the master of the ship ensure that each seafarer assigned on board the ship holds an appropriate certificate in accordance with the 1978 STCW Convention, as amended, and that the seafarer is capable of fulfilling his/her duties and of operating the ship used on the intended route before engagement.
- 3.7 The trading routes and patterns and the worst conditions to be expected in those areas should be taken into consideration when determining the vessel is sufficiently and efficiently manned.
- 3.8 A common working language should be designated in accordance with regulation 13(c) of SOLAS.
4. Manning principles
- 4.1 All seafarers mentioned in the minimum safe manning document or additionally engaged on board for the purpose of the business or operation of the ship, should be trained and certificated in accordance with the STCW 1978 Convention, as amended, and the following points should, inter alia, be taken into account when providing a ship with a safe manning document:

#### **4.2 Working hours and rest periods**

##### **.1 Watchkeeping personnel:**

- (a) the rest periods for watchkeeping personnel should, as a minimum, be arranged in accordance with Chapter VIII of the revised 1978 STCW Convention and in line with national law and other relevant international instruments which are more favourable to the seafarer; and
- (b) all watchkeeping rotas should be posted in accordance with the requirements of A-VIII/1 of the STCW Code.

##### **.2 Personnel others than watchkeeping personnel:**

The rest periods for personnel other than watchkeeping personnel should be at least equivalent to those of watchkeeping personnel and in accordance with applicable international instruments.

- ##### **.3**
- The administration should ensure that there are a sufficient number of qualified personnel to meet peak work load situations, taking into account the frailty of persons.

#### **4.3 Watchkeeping arrangements (navigational, engineering and radiocommunications)**

- .1** The watchkeeping arrangements should be organised in accordance with Chapter VIII of the revised 1978 STCW Convention.
- .2** The duties of both the engine room and deck watchkeeping officers, even if the person in charge holds an alternative certificate in accordance with Chapter VII of 1978 STCW Convention, cannot be assigned to a single certificate holder during any particular watch.
- .3** Save on ships of limited size, the three-watch system should be applied to all watchkeeping personnel.
- .4** On ships of limited size when a two-watch system is adopted the length of continuous service on board should be reduced to three months or less, so as to prevent undue fatigue.
- .5** Save on ships of limited size, the master and the chief engineer officer should not stand regular watches, but should be available at all times.

#### **4.4 Navigational watch**

- .1** In addition to navigational and collision avoidance duties, the officer in charge of the navigational watch who is in effective control of the ship should exercise general surveillance over the ship and should take all possible precautions to avoid pollution of the marine environment. This surveillance will include, for example, the investigation of evidence of fire or unusual noises, security of cargo, general safety of crew members when working in exposed locations, the general watertight integrity of the ship and action in the event of a person overboard.

- .2 The navigational watch should consist of at least one officer qualified to take charge of a navigational watch and at least one qualified seafarer.
- .3 During periods of darkness the navigational watch should always consist of at least an officer in charge of the navigational watch and a qualified rating assisting him as look-out and with other necessary watchkeeping duties.
- .4 There should also be capability to provide further assistance at any time if the officer of the watch requires additional help, for, but not limited to, the following duties:
  - (a) for controlling the helm;
  - (b) additional look-out;
  - (c) cargo securing;
  - (d) fire-prevention controls;
  - (e) security on passenger ships; and
  - (f) protection of the marine environment.
- .5 The crew providing such assistance should be duly qualified for watchkeeping duties, readily available, sufficiently rested and fit for duty.

#### 4.5 Engineering watch

- .1 In addition to the normal engineering watchkeeping duties, the engineer officer in charge of the engineering watch who is in effective control of the ship should exercise general surveillance over the ship and should take all possible precautions to avoid pollution of the marine environment. This surveillance will include, for example, the investigation of evidence of fire or unusual noises, general safety of crew members when working in exposed locations and general watertight integrity of the ship.
- .2 The engineering watch should consist of at least one officer qualified to take charge of an engineering watch.
- .3 In manned engine rooms there should always be a qualified engineer officer in charge of the engineering watch present, either in the engine room or the engine control room.
- .4 In periodically unmanned engine rooms there should always be a qualified engineer officer responsible for the unmanned operation. A continuous period of responsibility should not exceed 16 hours.
- .5 A duly qualified and fit seafarer should be readily available to assist the engineer officer during the watch.
- .6 There should also be capability to provide further assistance at any time if the engineer officer in charge of the engineering watch requires additional help, for, but not limited to, the following duties:
  - (a) operating the engine systems in the manual mode;
  - (b) fire prevention controls;
  - (c) bunkering and ballast operations;
  - (d) operating the fuel distribution systems;

- (e) operating the steering gear/emergency steering gear in the manual/emergency mode;
- (f) operating the cargo refrigeration system, other cargo care equipment and cargo containment systems;
- (g) performing emergency repairs as required for maintenance of propulsion systems, steering and other systems necessary to ensure continuous power for safe navigation; and
- (h) security on passenger ships.

- .7 The crew providing such assistance should be duly qualified, readily available, sufficiently rested and fit for duty.

#### 4.6 Radio-watchkeeping

- .1 An effective safety radio watch should be maintained while a ship is at sea in accordance with Chapter VIII of 1978 STCW Convention, taking into account the applicable requirements contained in the Radio Regulations.

#### 5. Functions other than watchkeeping functions

- 5.1 There should be sufficient personnel to ensure that the other essential functions can be undertaken in a safe and efficient manner, without the personnel becoming impaired through fatigue. These include, and, where appropriate, in all weathers, the:

- .1 operation of fire equipment and life-saving appliances;
- .2 mustering and disembarking passengers;
- .3 stowage and securing cargo, including dangerous goods, and surveillance of cargo and cargo carriage equipment during the voyage;
- .4 managing emergency situations, both at sea and in port;
- .5 maintaining the safety arrangements and cleanliness;
- .6 ensuring occupational safety, health and hygiene, including crew accommodation;
- .7 ensuring continuous maintenance of the safety and navigational equipment, the ship's machinery and electrical/electronics, hydraulics and other ship equipment;
- .8 providing proper food and drinking water for the crew and passengers;
- .9 preparing proper meals and managing the storage of food provisions;
- .10 providing continuous on-board training, including that required for entrant seafarers;
- .11 mooring and unmooring. The number of persons required for mooring a ship varies from ship to ship, depending of the ship size and the equipment fitted. On all ships there should be a sufficient number of persons to enable them to accept and effectively secure a tug and to send away, tension and secure mooring ropes and wires. Any necessary operations should be capable of being performed simultaneously at all manoeuvring stations;

- .12 assisting other ships in emergency situations and rescuing persons from sea;
- .13 ensuring the functioning and the maintenance of the cargo carriage;
- .14 preparing the ship for port operations before arrival and for the voyage, prior to departure, including the safe rigging of pilot ladders; and
- .15 maintenance of environmental protection equipment and procedures.

5.2 Additional skills or functions and/or personnel needed for special duties and maintenance

5.2.1 The crew composition should be adequate in terms of the number of persons competent in radiocommunications, computer skills and electronic maintenance so as to ensure that:

- .1 the master, chief mate, radio officer, officers in charge of the navigational watch are qualified for GMDSS radiocommunications in accordance with SOLAS or the Radio Regulations. If no Radio Officer is carried the master, chief mate and every officer in charge of the navigational watch should be trained and qualified in GMDSS, either to GOC or ROC;
- .2 there is a person qualified in maintenance and repair of electrical and electronic equipment; and
- .3 there is a person trained in computer skills, if such equipment is carried.

5.2.2 A person competent for being in charge of the medical care onboard in accordance with the 1978 STCW Convention (Section A-VI/4, paragraphs 4 to 6), other than the master.

5.2.3 In addition to the person responsible for the preparation of food there should always be at least one person on a supporting level in the catering department.

5.2.4 There should be a person or persons trained in and qualified for instruction duties for ongoing onboard safety training and emergency duties of the personnel.

5.2.5 There should also be other personnel with appropriate special skills required for the operations of the ship and the trade in which it is involved.

6. Special requirements on certain types of ship

6.1 The safe manning for oil, gas and chemical tankers should, *inter alia*, include the following:

- .1 all tanker personnel should be trained and experienced in accordance with the requirements contained in Chapter V, Regulation V/1 of STCW Convention, and
- .2 there should be an additional person competent to undertake the functions related to a pumpman.

**6.2 Ro-ro passenger ships**

In view of Regulation V/2 of Chapter V and the relevant parts of Section A and B of STCW Code on ro-ro passenger vessels, including those engaged on extremely short voyages and with frequent arrival and departures, there should be an adequate number of suitably trained and qualified personnel and, in view of the intense nature of the work, a regular relief system.

**6.3 Passenger ships**

In addition to Regulation V/3 of Chapter V and the relevant parts of Section A and B of STCW Convention, personnel on passenger ships who are nominated or designated to assist passengers in emergencies should also meet the basic safety training requirements contained in Chapter VI of the STCW Convention as related to the duties assigned to such personnel.

**6.4 Bulk Carriers**

The crew composition of ships carrying solid bulk cargoes should be sufficient to ensure that the hull and superstructure can be inspected and, where necessary, maintained to ensure structural integrity.

**6.5 High speed craft**

Personnel employed or engaged on high speed craft should comply with special manning requirements contained in the HSC Code.

**6.6 Other ships**

The Administration should in addition to the general requirements of this Code take into account other special requirements which may be required for other types of ships, such as, but not limited to:

- mobile offshore units;
- seagoing tugs and rescue vessels;
- icebreakers; and
- stationary or near stationary ships.

**7. Minimum safe manning documents**

**7.1** The following information should be stated in the minimum safe manning document, in whatever form, which is issued by the Administration specifying the minimum safe manning. If the language used is not English the information given should include a translation into English.

**7.2** The safe manning document issued by the Administration should include at least, but not limited to, the following:

- .1 A clear statement of the ship's name, IMO Number, signal letters, type, port of registration, flag State, size in GT and dwt, propulsion power type and size of electrical power plant;

- .2 A table showing the numbers and grades of personnel required to be carried which should indicate the:
- (a) qualifications required of the master and chief mate (STCW Chapter II regulation II/2);
  - (b) number of deck officers qualified for taking charge of the navigational watch (STCW Chapter II or VII);
  - (c) number of officers qualified for Radiocommunication and Radiowatchkeeping (GMDSS or SOLAS) (Chapter IV);
  - (d) qualifications required of the chief engineer officer and second engineer officer (STCW Chapter III Chapter II Regulation III/2);
  - (e) number of engineer officers qualified for taking charge of an engineering watch (STCW Chapter III or VII);
  - (f) number of ratings qualified for taking part in a navigational watch (STCW Chapter II regulation II/4);
  - (g) number of ratings qualified for taking part in an engineering watch (STCW Chapter III regulation II/4);
  - (h) number of other officers and ratings taking care of duties other than watchkeeping and additional personnel when there are special requirements; and
  - (i) number of qualified catering staff for the provision of food, preparing of meals for the crew and for cleaning purposes in the accommodation spaces.
- .3 A formal statement by the Administration that, having regard to the contents of this Code, the ship named in the document is to be considered as safely manned if, whenever it proceeds to sea, it carries not less than the numbers and grades of personnel shown in the document, subject to any special conditions stated therein, and that trainees should not to be included as personnel meeting the requirements of the minimum safe manning document,
- .4 a statement as to any limitations on the validity of the document by reference to particulars of the individual ship and the nature of the service upon which it is engaged,
- .5 the date of issue and any expiry date of the document together with a signature for and the seal of the Administration.
-

